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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,961	01/03/2002	Sundee M. Bajikar	ITL.0666US	2177
21906	7590	03/14/2006	EXAMINER	
TROP PRUNER & HU, PC 8554 KATY FREEWAY SUITE 100 HOUSTON, TX 77024			LE, DANH C	
			ART UNIT	PAPER NUMBER
			2683	

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/038,961

Applicant(s)

BAJIKAR, SUNDEEP M.

Examiner

DANH C. LE

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4-6,8-15,17,19,21-25,31 and 33-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,4-6,8-14,17,19,21-24,31 and 33-34,37 is/are rejected.
- 7) ☒ Claim(s) 15,25 and 36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 2, 4-6, 8-15, 17, 19, 21-25, 31, 33-37 in the reply filed on 12/14/05 is acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 2, 4-6, 8, 10-14, 17, 19, 21-24, 31, 33, 35, 37 are rejected under 35**

U.S.C. 102(b) as being anticipated by Rabe (US 6,138,011).

As to claim 8, Rabe inherently teaches a method (figure 1-4) comprising:
querying a controller to acquire a channel lock for communication via a first one of at least two wireless transceiver interfaces;
in response to an indication from the controller, gaining ownership of the channel lock based on priority information of the at least two wireless transceiver interfaces; and
opening a communication channel for a communication session associated with the first one of the at least two wireless transceiver interfaces.

As to claim 2, Rabe teaches the method of claim 8 (figure 2, 4), further comprising:

tracking a potential communication associated with said at least two wireless transceiver interfaces;

arbitrating control of communication between said at least two wireless transceiver interfaces based on the priority information and the potential communication; and

selectively energizing each said wireless transceiver interface based on the control of communication.

As to claim 4, Rabe teaches the method of claim 8, further comprising prioritizing each said wireless transceiver interface based on a first criterion indicative of an overhead associated with a potential communication for each said wireless transceiver interface (figure 4).

As to claim 5, Rabe teaches the method of claim 8, further comprising prioritizing each said wireless transceiver interface based on a second criterion indicative of an amount of data associated with a potential communication for each said wireless transceiver interface (figure 6).

As to claim 6, Rabe teaches the method of claim 8, further comprising prioritizing each said wireless transceiver interface based on a third criterion indicative of a power consumption associated with a potential communication for each said wireless transceiver interface (col.9, lines 1-16).

As to claim 9, Rabe teaches the method of claim 8, including releasing the ownership of the channel lock when the communication session is finished (figure 2, 4, 5).

As to claim 10, Rabe teaches the method of claim 9, including transferring the ownership of the channel lock to another one of the at least two wireless transceiver interfaces when said communication channel becomes available for another communication session through time slicing (figure 2, 4, 5).

As to claim 11, Rabe teaches an apparatus (figure 1) comprising:

an antenna;

a first communication interface coupled to the antenna corresponding to a first wireless device;

a second communication interface coupled to the antenna corresponding to a second wireless device; and

a module operably coupled to the first and second communication interfaces to disable communication between the first communication interface and said first wireless device while the second communication interface is conducting communication for said second wireless device.

As to claim 12, Rabe teaches the apparatus of claim 11, wherein said first communication interface to provide a first activity signal, said second communication interface to provide a second activity signal, and said module to:

detect the first and second activity signals, assign a priority to each said first and second wireless device, track a potential communication associated with each said communication interface, and to arbitrate control of communication between the first and second communication interfaces based on the priority and the potential communication corresponding to said first and second wireless devices and selectively

energize at least one of the first and second communication interfaces based on the control of communication (figure 2, 4, 5).

As to claim 13, Rabe teaches the apparatus of claim 11, wherein said module to:
determine a type of and assign a priority to each said wireless device;

derive device characteristics and priority information from the priority and the type of each said wireless device; and

send said device characteristics and priority information to each said communication interface (figure 2, 4, 5).

As to claim 14, Rabe teaches the apparatus of claim 11, wherein each said communication interface to:

query said module to acquire a channel lock for communication via the corresponding wireless device;

in response to an indication from said module, gain ownership of the channel lock; open a communication channel for a communication session; and

release the ownership of the channel lock when the communication session is finished (figure 2, 4, 5).

As to claim 19, the claim is computer software of claim 8; therefore, the claim is interpreted and rejected as set forth as claim 8.

As to claim 17, the claim is computer software of claim 2; therefore, the claim is interpreted and rejected as set forth as claim 2.

As to claim 37, the claim is computer software of claim 9; therefore, the claim is interpreted and rejected as set forth as claim 9.

As to claim 21, Rabe teaching a processor-based system (figure 1-5) comprising:

a processor;

a storage operably coupled to said processor to store a priority protocol to track pending transactions associated with at least two wireless transceivers and prioritize one of said at least two wireless transceivers;

at least two wireless transceiver interface devices operably coupled to said processor to provide corresponding gating signals associated with the at least two wireless transceivers; and an arbitration device operably coupled to said at least two wireless transceiver interface devices to selectively provide communication control to said one of at least two wireless transceivers based on the priority protocol.

As to claim 22, Rabe teaching the processor-based system of claim 21, wherein said arbitration device to power up or down the at least two wireless transceiver interface devices based on the communication control (col.9, lines 1-16).

As to claim 23, Rabe teaching the processor-based system of claim 22, wherein said arbitration device to:

determine the type of each said wireless transceiver, derive device characteristics and priority information from the priority and the type of each said wireless transceiver; and

send said device characteristics and priority information to each said wireless transceiver (figure 1-5).

As to claim 24, Rabe teaching processor-based system of claim 21, wherein each said wireless transceiver interface device to:

query said arbitration device to acquire a channel lock for communication control;

in response to an indication from said arbitration device, gain ownership of the channel lock;

open a communication channel for a communication session; and
release the ownership of the channel lock when the communication session is finished (figure 1-5).

As to claim 31, Rabe teaches a personal computer system (figure 1, 3) comprising:

a processor;
at least two wireless transceivers coupled to the processor, each of the at least two wireless transceivers to provide a gating signal to indicate activity in a corresponding radio device; and

a single antenna coupled to the at least two wireless transceivers to provide radio frequency (RF) signals to and from the corresponding radio devices.

As to claim 33, Rabe teaches a personal computer system of claim 31, further comprising a controller coupled to receive each of the gating signals and arbitrate a communication channel between the at least two wireless transceivers .

As to claim 34, Rabe teaches the personal computer system of claim 33, wherein the controller to arbitrate using a priority of each of the at least two wireless transceivers (figure 1-5).

As to claim 35, Rabe teaching the personal computer system of claim 31, wherein the at least two wireless transceivers to query a controller to acquire a channel lock for communication control, in response to an indication from said controller gain ownership of the channel lock, open a communication channel for a communication session, and release the ownership of the channel lock when the communication session is finished (figure 1-5).

Allowable Subject Matter

Claims 15, 25, 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 15, 25, 36 the teaching of above prior art fails to **further comprising** to transfer the ownership of the channel lock to another one of the first and second wireless devices when said communication channel becomes available.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A. Walkup (US 2002/0111137) teaches method and apparatus for repeater priority resolution in a wireless communication system.

B. Comer (US 6,882,843) teaches multiple wireless data transport transceiver system.

C. Pon et al (US 6,272,343) teaches method and apparatus for Fast signal acquisition of preferred wireless channel.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C. LE whose telephone number is 571-272-7868. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "danh", is written over a horizontal line.

March 03, 2006.

DANH CONG LE

PRIMARY EXAMINER